May 1999

22603-BRE-0000-06000

(Rev. 1, July 23, 1999)

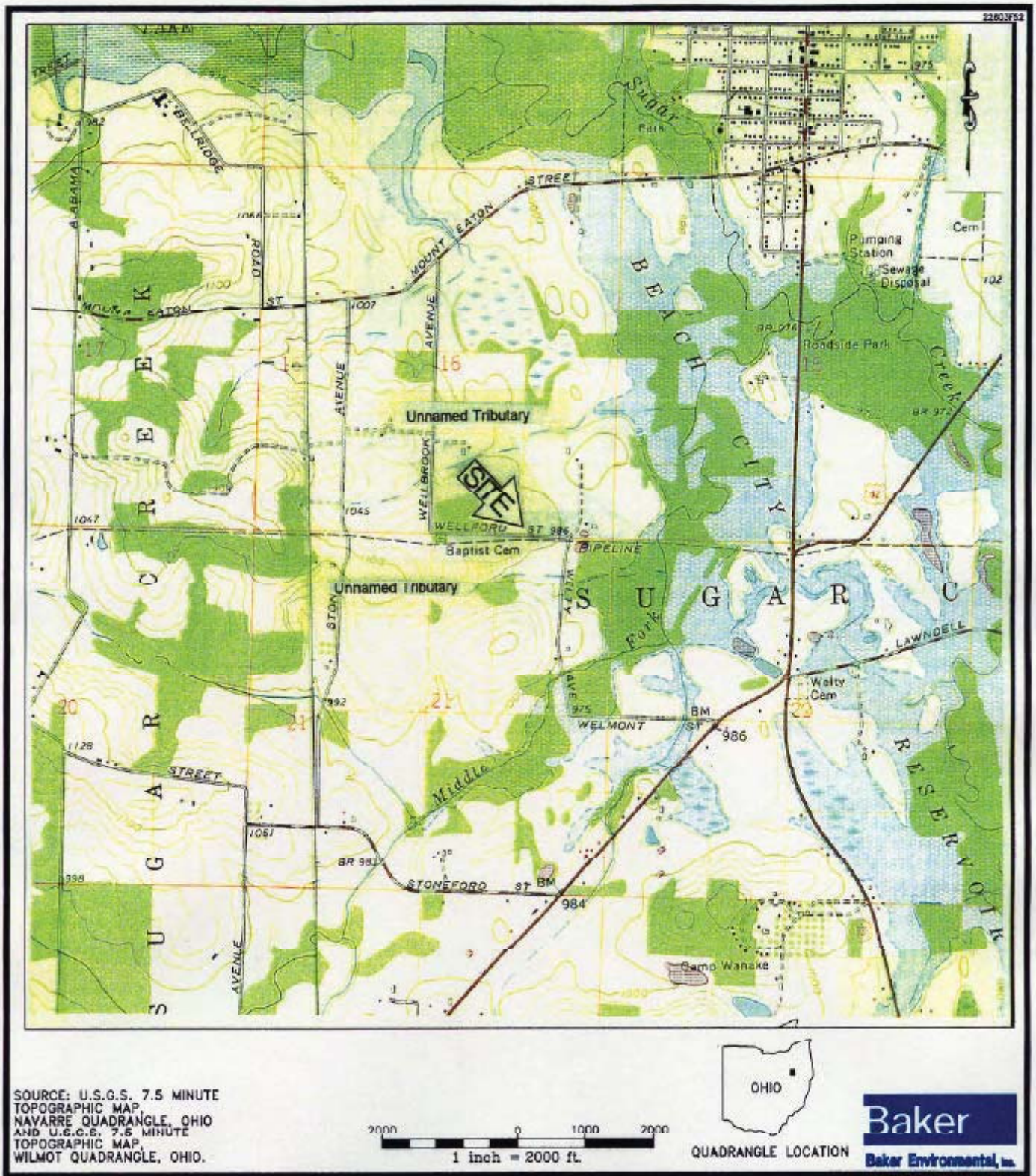
CHARACTERIZATION REPORT
FORMER BREWSTER COMPRESSOR STATION
STARK COUNTY, OHIO

Prepared for

COLUMBIA GAS TRANSMISSION CORPORATION
Environmental Affairs-Remediation
P.O. Box 1273
1700 MacCorkle Avenue, SE
Charleston, West Virginia

Prepared by

Baker Environmental, Inc.
Coraopolis, Pennsylvania



SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP, NAVARRE QUADRANGLE, OHIO AND U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP, WILMOT QUADRANGLE, OHIO.

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FIGURE 1-1
SITE LOCATION MAP
FORMER BREWSTER COMPRESSOR STATION

COLUMBIA GAS TRANSMISSION CORPORATION
STARK COUNTY, OHIO

2.0 ENVIRONMENTAL SETTING

2.1 Physical Setting

The Former Brewster CS is surrounded by a 4-foot high wire farm fence and occupies slightly greater than one quarter acre in area. A gravel base covers the CS within the fenced area and land surrounding the CS is used for agriculture, pasture, and grazing. Topography at the CS is relatively flat for the geographic area with a slight sloping to the northeast (i.e., southwest being topographically up gradient and the northeast being topographically down gradient). The CS is at an elevation of approximately 1,000 feet above mean sea level (msl) with the surrounding ridges generally less than 1,100 feet msl (Figure 1-1).

2.2 Climate

The geographic area of Ohio in which the site is located receives a mean annual precipitation of approximately 33 inches, which is fairly well distributed throughout the year with Fall having the least precipitation of the four seasons and late Winter/early Spring having the most precipitation. Prevailing wind direction is from the south. Temperatures vary widely, with average lows during the winter months reaching 20 degrees Fahrenheit to highs during the summer months reaching 83 degrees Fahrenheit. (Soil Survey of Stark County, Ohio, 1971).

2.3 Surface Water Hydrology

The Former Brewster CS is located between two unnamed, intermittent tributaries of Middle Fork Creek, which flows north into Sugar Creek (Figure 1-1). Both Middle Fork Creek and Sugar Creek flow through the Beach City Reservoir. The two unnamed, intermittent tributaries flow east in parallel with each other; one located approximately 1,400 feet north of the CS and the other located approximately 800 feet south of the CS.

During characterization field activities, no obvious drainage ditches were observed at the Former Brewster CS.

2.4 Geology and Soils

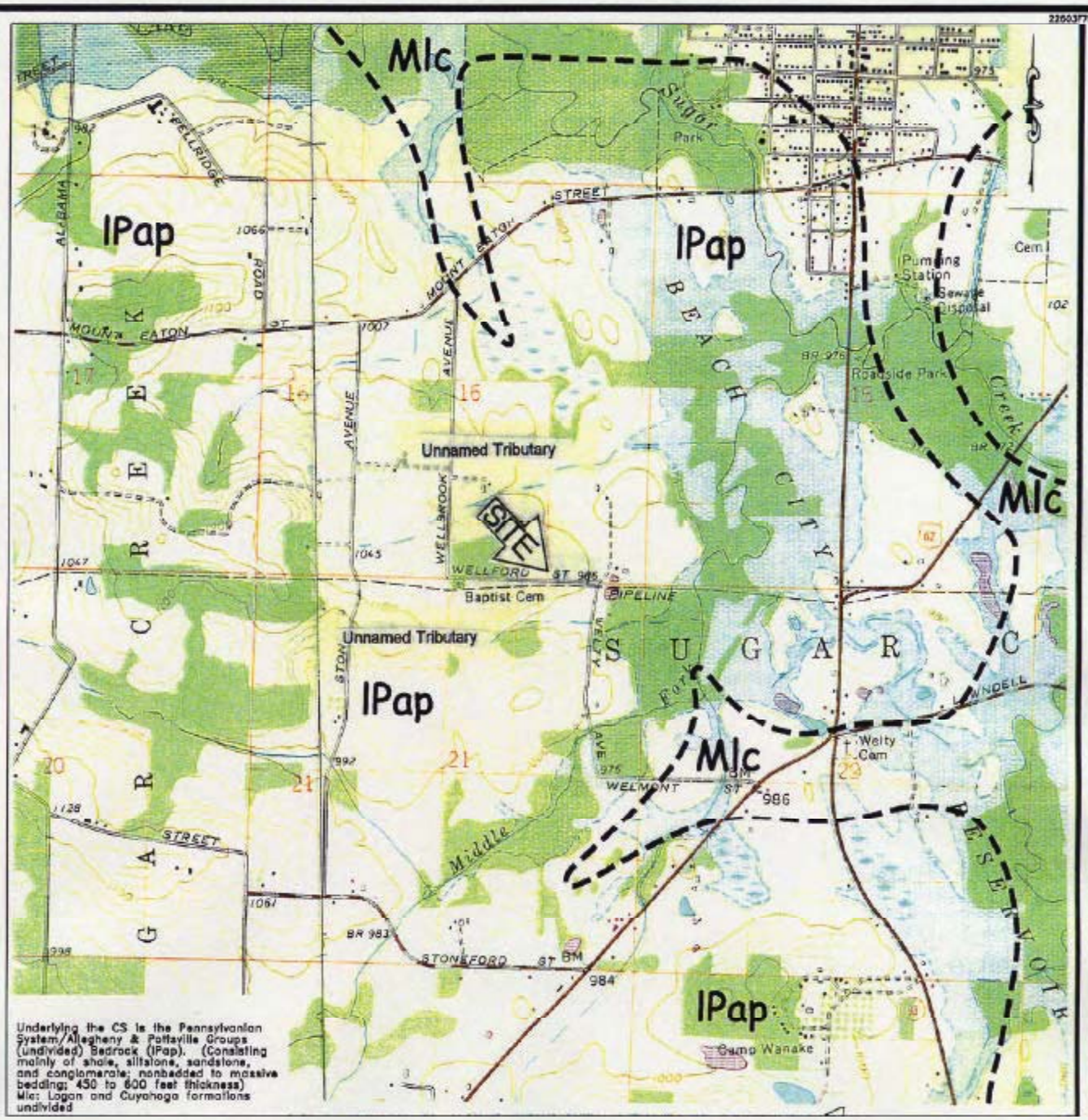
The Former Brewster CS is located within the unglaciated part of the Allegheny Plateau Physiographic Province (Figure 2-1). The bedrock in this region is sedimentary in origin and consists predominantly of the Pennsylvanian System/Allegheny and Pottsville Groups. Bedrock in the area consists mainly of shale, siltstone, and sandstone with nonbedded to massive bedding and thicknesses up to 600 feet (ODNR, 1997).

Soils in the area are just beyond the limits of glacial drift or till deposits. A silt loam is the predominant soil in the area. These soils typically are moderately well drained with moderate permeability in the upper subsoils to moderately slow permeability in the lower subsoil horizon. These soils have a perched water table during long wet periods. (Soil Survey of Stark County, Ohio, 1971).

2.5 Hydrogeology and Groundwater Quality

In valley bottoms, useable quantities of groundwater are generally obtained from both shallow dug wells in unconsolidated deposits and/or wells installed into bedrock formations. In other topographic areas, wells completed in bedrock or springs are a source of potable water supplies.

The Groundwater Resources Map for Stark County, published in 1988 by the Ohio Department of Natural Resources, indicates that the Former Brewster CS is located in an area with well yields of 25 to 100 gallons per minute (gpm). The CS is located in an area of imbedded and interlensing sand, gravel, silt, and clay. Farm and small industrial supplies are available from wells ranging to 150 feet deep. Groundwater in the area is obtained from sandstones of the Pottsville Group within the Allegheny Plateau Physiographic Province. Principle aquifers are the Massillon Sandstone (upper) and the Sharon Conglomerate (lower). Wells will produce sustained yields of as much as 50 gpm. The Sharon Conglomerate is encountered between 150 feet to 300 feet bgs. With few exceptions, the bedrock is covered by no more than 75 feet of glacial material north of the CS, and less to the south where the CS is beyond the limits of glaciation. The principal source of groundwater recharge in the area is from precipitation.



SOURCE: U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP, NAVARRE QUADRANGLE, OHIO AND U.S.G.S. 7.5 MINUTE TOPOGRAPHIC MAP, WILMOT QUADRANGLE, OHIO.

2000 0 1000 2000
1 inch = 2000 ft.

QUADRANGLE LOCATION

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FIGURE 2-1
SITE GEOLOGY
FORMER BREWSTER COMPRESSOR STATION

COLUMBIA GAS TRANSMISSION CORPORATION
STARK COUNTY, OHIO

Table 4-3
Summary of Analytical Results

		PRA					10	
		PRA Description					PRA #10-BACKGROUND SAMPL	
		Sample Type					Normal Sample	
		Sample Id	BRW-ASB016-70002		BRW-ASB016-70003		BRW-ASB018-70001	
		Depth - ft bgs	1.5 - 2.5		4 - 5		1 - 3	
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	**Result Flag**	**> CAL***	**Result Flag**	**> CAL***	**Result Flag**	**> CAL***
VOA	**TOLUENE**	16000	ND		ND		0.007	
	TETRACHLOROETHYLENE(PCE)	12	ND		ND		ND	
BNA	**DIESEL**		ND		ND		ND	
METAL	**BARIUM, TOTAL**	5500	46.5		61.4		69.1	
	CHROMIUM, TOTAL	230	15.2		16.7		10.6	
	LEAD, TOTAL	400	ND		ND		ND	
	NICKEL, TOTAL	1600	16.7		19.4		ND	
	ARSENIC, TOTAL	.43	17.6	X	15.9	X	10.6	X

Notes:

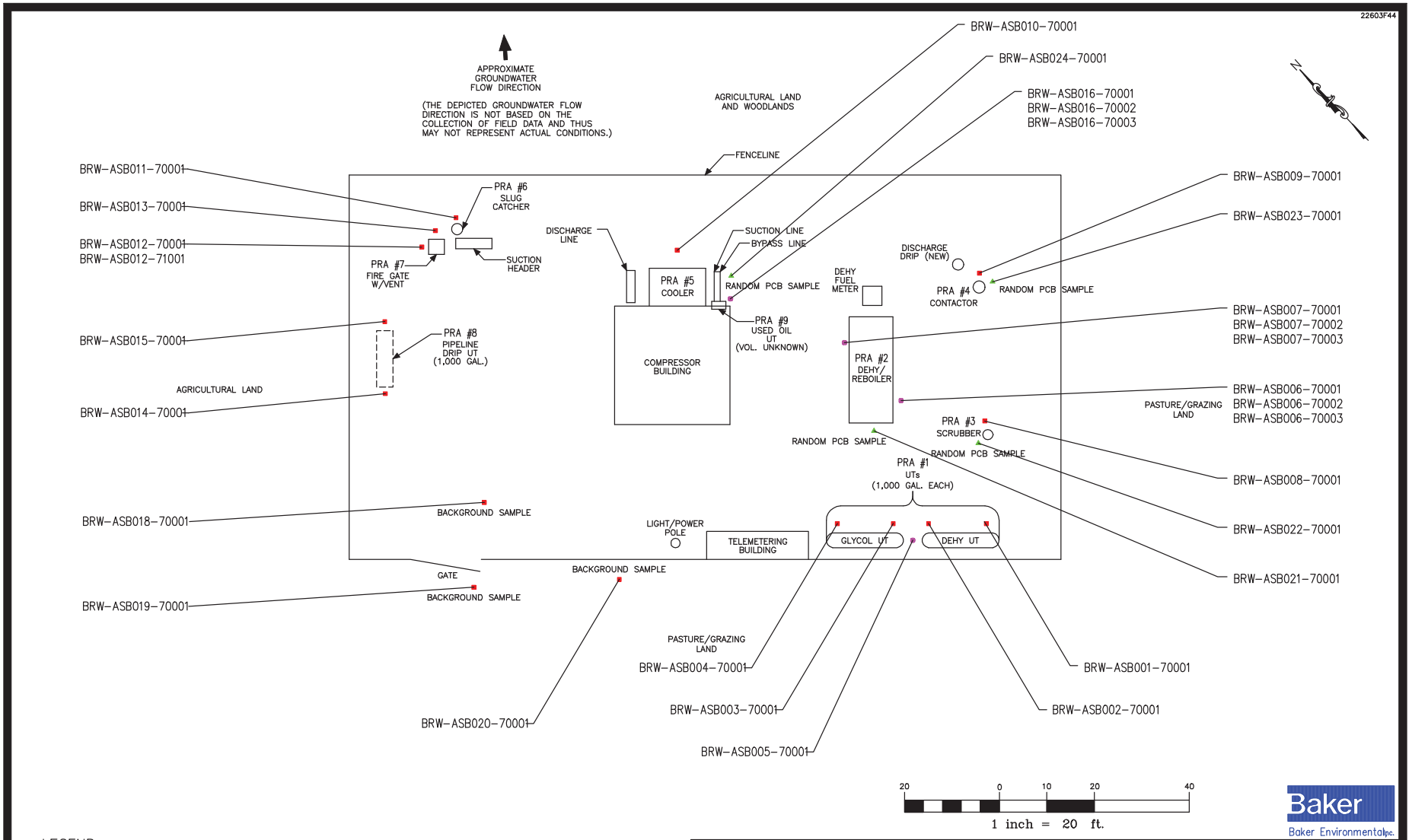
* "> CAL" equals "X" when reported value is above characterization action level for this locale.
J flag - Numerical value is an estimated quantity.
ND indicates Non-Detect
Blank cells in result column indicate an analysis was not performed for that analyte.

Table 4-3
Summary of Analytical Results

		PRA					11	
		PRA Description	.ES				PRA #11-RANDOM PCB SAMPLE	
		Sample Type					Normal Sample	
		Sample Id	BRW-ASB019-70001		BRW-ASB020-70001		BRW-ASB021-70001	
		Depth - ft bgs	1 - 3		1 - 3		0 - .5	
		Result Units	MG/KG		MG/KG		MG/KG	
Category	Analyte	Action Level	Result Flag	> CAL*	Result Flag	> CAL*	Result Flag	> CAL*
VOA	TOLUENE	16000	ND		ND			
	TETRACHLOROETHYLENE(PCE)	12	0.009		ND			
BNA	DIESEL		ND		ND			
METAL	BARIUM, TOTAL	5500	69.5		48.7			
	CHROMIUM, TOTAL	230	17.7		13.1			
	LEAD, TOTAL	400	ND		ND			
	NICKEL, TOTAL	1600	14.6		19.3			
	ARSENIC, TOTAL	.43	10.0	X	16.7	X		

Notes:

* "> CAL" equals "X" when reported value is above characterization action level for this locale.
J flag - Numerical value is an estimated quantity.
ND indicates Non-Detect
Blank cells in result column indicate an analysis was not performed for that analyte.


22603F44
APPROXIMATE GROUNDWATER FLOW DIRECTION
(THE DEPICTED GROUNDWATER FLOW DIRECTION IS NOT BASED ON THE COLLECTION OF FIELD DATA AND THUS MAY NOT REPRESENT ACTUAL CONDITIONS.)
AGRICULTURAL LAND AND WOODLANDS
FENCELINE
BRW-ASB010-70001
BRW-ASB024-70001
BRW-ASB016-70001
BRW-ASB016-70002
BRW-ASB016-70003
N
BRW-ASB011-70001
BRW-ASB013-70001
BRW-ASB012-70001
BRW-ASB012-71001
PRA #6 SLUG CATCHER
SUCTION HEADER
PRA #7 FIRE GATE W/VENT
DISCHARGE LINE
SUCTION LINE
BYPASS LINE
PRA #5 COOLER
RANDOM PCB SAMPLE
DEHY FUEL METER
DISCHARGE DRIP (NEW)
PRA #4 CONTACTOR
RANDOM PCB SAMPLE
BRW-ASB009-70001
BRW-ASB023-70001
BRW-ASB015-70001
PRA #8 PIPELINE DRIP UT (1,000 GAL.)
PRA #9 USED OIL UT (VOL. UNKNOWN)
COMPRESSOR BUILDING
PRA #2 DEHY/ REBOILER
BRW-ASB007-70001
BRW-ASB007-70002
BRW-ASB007-70003
AGRICULTURAL LAND
BRW-ASB014-70001
BRW-ASB006-70001
BRW-ASB006-70002
BRW-ASB006-70003
PASTURE/GRAZING LAND
PRA #3 SCRUBBER
RANDOM PCB SAMPLE
RANDOM PCB SAMPLE
PRA #1 UTs (1,000 GAL. EACH)
BRW-ASB008-70001
BRW-ASB018-70001
BACKGROUND SAMPLE
LIGHT/POWER POLE
TELEMETERING BUILDING
GLYCOL UT
DEHY UT
BRW-ASB022-70001
BRW-ASB021-70001
GATE
BACKGROUND SAMPLE
BRW-ASB019-70001
BACKGROUND SAMPLE
PASTURE/GRAZING LAND
BRW-ASB004-70001
BRW-ASB001-70001
BRW-ASB003-70001
BRW-ASB002-70001
BRW-ASB020-70001
BRW-ASB005-70001
20 0 10 20 40
1 inch = 20 ft.
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LEGEND
– SURFACE AND AT DEPTH SOIL SAMPLE LOCATION
– SURFACE SOIL/SEDIMENT SAMPLE LOCATION
– AT DEPTH SOIL SAMPLE LOCATION
SCALE: 1" = 20' DATE: 04/20/98
S.O. NO.: 22603-BRE-0000-06000 FILE: 22603F44
REV: 1, 05/10/99 CHK:
FIGURE 4-1
SAMPLE RESULTS WHICH EXCEED CALs AND/OR BACKGROUND
FORMER BREWSTER COMPRESSOR STATION

4.3.1 Background Sampling Results

One background soil sample was collected from 1 to 3 feet bgs at three locations believed to not be affected by operations of the compressor station (Figure 4-1). These three samples were located both inside and outside the gate entrance near the northwest corner of the CS. All three of these samples were analyzed for Table 1 (CWP) constituents.

For all three background samples (BRW-ASB018-70001, BRW-ASB019-70001, and BRW-ASB020-70001), there was no detection of SVOCs, or PCBs. However, laboratory analytical results indicated the presence of very low levels of toluene [7 micrograms per kilogram (ug/kg)] and tetrachloroethene (9 ug/kg) in background samples BRW-ASB018-70001 and BRW-ASB019-70001, respectively. In addition, laboratory analytical results indicated the presence of various metals at low concentrations below CALs in all three background samples, with the exception of arsenic. Arsenic was detected above CALs in all three background samples with concentrations of 10.6 mg/kg, 10.0 mg/kg, and 16.7 mg/kg, respectively. These values are presented within Table 4-2.

Because all three of the background borings are believed to be in locations not affected by CS operations, it is believed that the metal concentrations observed in the three background samples are indigenous to soils in the area, and thus, are not representative of a release from the compressor station operations.

As provided in the CWP (June 1996), the highest concentration of a constituent detected in the background samples or the value calculated in Appendix G is used to establish the background concentration for this constituent at the CS. The calculated background value for arsenic (CBVA) is 24.87 mg/kg, as presented in Appendix G. This value is used to evaluate the results of the remaining PRAs.

4.3.2 Random PCBs Sampling Results

One random PCB soil sample was collected from 0 to 6 inches bgs at four locations within the limits of compressor station operations. These four samples (BRW-ASB021-70001, BRW-ASB022-70001, BRW-ASB023-70001, and BRW-ASB024-70001) were collected at random locations to act as a

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TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA1-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 10.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Glycol and Dehy UTs (BTEX, TPH, Glycol)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N						
8.0	N				8.0'		
10.0	S-1		BRW-ASB001-70001	0.0	SILTY CLAY; trace gravel; brown; dry		
					10.0' Bottom of Boring at 10'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA1-Boring A SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA1-Boring B
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 10.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Glycol and Dehy UTs (BTEX, TPH, Glycol)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N						
8.0	N				8.0'		
10.0	S-1		BRW-ASB002-70001	0.0	SILTY CLAY; trace gravel; brown; dry		
					10.0' Bottom of Boring at 10'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA1-Boring B SHEET 1 OF 1

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TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA1-Boring C
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 10.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Glycol and Dehy UTs (BTEX, TPH, Glycol)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1							
2	N						
3							
4 4.0							
5							
6	N						
7							
8 8.0					8.0'		
9	S-1		BRW-ASB003-70001	0.0	SILTY CLAY; trace gravel; brown; dry		
10 10.0					10.0'		
					Bottom of Boring at 10'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA1-Boring C SHEET 1 OF 1

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TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA1-Boring D
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 10.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Glycol and Dehy UTs (BTEX, TPH, Glycol)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1							
2	N						
3							
4 4.0							
5							
6	N						
7							
8 8.0					8.0'		
9	S-1		BRW-ASB004-70001	0.0	SILTY CLAY; trace gravel; brown; dry		
10 10.0					10.0'		
					Bottom of Boring at 10'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA1-Boring D SHEET 1 OF 1

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA1-Boring E
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 10.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Glycol and Dehy UTs (BTEX, TPH, Glycol) (Fill Port)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N						
8.0	N				8.0'		
10.0	S-1		BRW-ASB005-70001	0.0	SILTY CLAY; trace gravel; brown; dry		
					10.0' Bottom of Boring at 10'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA1-Boring E SHEET 1 OF 1

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA2-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Reboiler/Dehy

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1 – 1.0	S-1		BRW-ASB 006-70001	0.0	SILTY CLAY, trace gravel; brown		
1.5	N						
2 – 2.5	S-2		BRW-ASB 006-70002	0.0			
3 – 4.0	N						
4 – 5.0	S-3		BRW-ASB 006-70003	0.0			
5					5.0		
6					Bottom of Boring at 5.0'		
7							
8							
9							
10							

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA2-Boring A

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Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA2-Boring B
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Reboiler/Dehy

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1 1.0	S-1		BRW-ASB 007-70001	0.0	SILTY CLAY, trace gravel; brown		
1.5	N						
2 2.5	S-2		BRW-ASB 007-70002	0.0			
3 4.0	N						
5 5.0	S-3		BRW-ASB 007-70003	0.0	5.0		
6					Bottom of Boring at 5.0'		
7							
8							
9							
10							

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA2-Boring B SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA3-Boring A
COORDINATES: EAST: NORTH:
ELEVATION: SURFACE: TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N				4.0		
5.0	S-1		BRW-ASB 008-70001	0.0	SILTY CLAY, trace gravel; brown 5.0		
					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA3-Boring A
SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA4-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1							
2	N						
3							
4 4.0					4.0		
5 5.0	S-1		BRW-ASB 009-70001	0.0	SILTY CLAY, trace gravel; brown 5.0		
6					Bottom of Boring at 5.0'		
7							
8							
9							
10							

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA4-Boring A SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA5-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N						
4.0					4.0		
5.0	S-1		BRW-ASB 010-70001	0.0	SILTY CLAY, trace gravel; brown		
5.0					5.0		
					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA5-Boring A SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA6-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N				4.0		
5.0	S-1		BRW-ASB 011-70001	0.0	SILTY CLAY, trace gravel; brown 5.0		
					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA6-Boring A
SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA7-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N				SILTY CLAY, trace gravel; brown	4.0	
5.0	S-1		BRW-ASB 012-70001	0.0	Duplicate (BRW-ASB-012-71001) & MS/MSD	5.0	
					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA7-Boring A
SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA7-Boring B
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N						
5.0	S-1		BRW-ASB 013-70001	0.0	SILTY CLAY, trace gravel; brown		
					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA7-Boring B SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA8-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N				4.0		
5.0	S-1		BRW-ASB 014-70001	0.0	SILTY CLAY, trace gravel; brown 5.0		
					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA8-Boring A
SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA8-Boring B
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/21/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: (BTEX, TPH, PCB)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
4.0	N				4.0		
5.0	S-1		BRW-ASB 015-70001	0.0	SILTY CLAY, trace gravel; brown (MS/MSD) 5.0		
					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA8-Boring B

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA9-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/22/97	0.0 - 5.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Table 1

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1 – 1.0	S-1		BRW-ASB 016-70001	0.0	SILTY CLAY, trace gravel; brown		
1.5	N						
2 – 2.5	S-2		BRW-ASB 016-70002	0.0			
3 – 4 – 4.0	N						
5 – 5.0	S-3		BRW-ASB 016-70003	0.0	5.0		
6 – 10					Bottom of Boring at 5.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA9-Boring A SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA10-Boring A
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/22/97	0.0 - 3.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Background (Table 1)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1 1.0	N				1.0		
2	S-1		BRW-ASB018-70001	0.0	SILTY CLAY; brown;		
3 3.0					3.0		
4					Bottom of Boring at 3.0'		
5							
6							
7							
8							
9							
10							

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA10-Boring A SHEET 1 OF 2

Baker
Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA10-Boring B
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/22/97	0.0 - 3.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Background (Table 1)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1 1.0	N				1.0		
2	S-1		BRW-ASB019-70001	0.0	SILTY CLAY; brown;		
3 3.0					3.0		
4					Bottom of Boring at 3.0'		
5							
6							
7							
8							
9							
10							

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA10-Boring B SHEET 1 OF 2

Baker Environmental

TEST BORING RECORD

PROJECT: Site Characterization at Columbia Gas Transmission - Former Brewster Compressor Station
SO NO.: 22603-BRE
BORING NO.: PRA10-Boring C
COORDINATES: EAST:
NORTH:
ELEVATION: SURFACE:
TOP OF PVC CASING:

Rig: Geoprobe	MC Liners	Casing	Augers	Core Barrel	Date	Progress (Ft.)	Weather	Depth to Water (Ft.)
Size (ID)	1-5/8" I.D.	---	--	--	5/22/97	0.0 - 3.0		--
Length	4.0 feet	---	--	--				
Type	---	---	--	--				
Hammer Wt.	---	--	--	--				
Fall	---	--	--	--				

Remarks: Background (Table 1)

SAMPLE TYPE
S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

WELL INFORMATION

Type	Diam.	Top Depth (Ft.)	Bottom Depth (Ft.)

Depth (Ft.)	Sample Type & No.	Sample Rec. (Ft.,%)	Lab ID	PID (ppm)	Visual Description	Well Installation Detail	Elevation (Ft. MSL)
1 – 1.0	N				1.0		
2 – 3.0	S-1		BRW-ASB020-70001	0.0	SILTY CLAY; brown;		
					3.0		
4 – 10					Bottom of Boring at 3.0'		

DRILLING CO.: Subsurface, Inc.
DRILLER: (b) (4)
BAKER REP.: (b) (4)
BORING NO.: PRA10-Boring C
SHEET 1 OF 2